

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 2, 2004. Claims 1 to 30 are pending in the application, of which Claims 1, 4, 7, 8, 11, 14, 15, 18, 21, 22, 26 and 30 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 4 and 7 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. According to the Office Action, the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 4 and 7 have been amended to clarify that the “end command” is a message which indicates that the printing process of the print data has finished. Such a message is illustrated in FIG. 3 and discussed in the detailed description at page 14, line 22, to page 15, line 3, in the subject application. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claims 8 to 30 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,181,436 (Kurachi). Further consideration and withdrawal of this rejection is respectfully requested.

Claim 8 is directed to an information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing print data, and a printer via a network. The information processing apparatus comprises: sending means for sending job information, which does not include print data, to the server apparatus so that the server apparatus manages a print order according to the job information;

image storage means for storing print data of a print job corresponding to the job information so that the information processing apparatus may directly transmit the print data to the printer without intervention of the server apparatus; selection means for causing a user to select one of a spool function of said image storage means and a spool function of the server apparatus via a user interface, which is adapted to store the print data of the print job to be executed according to the print request to the server apparatus; determination means for determining whether the spool function of said image storage means is selected or the spool function of the server apparatus is selected by said selection means; control means for, if it is determined by said determination means to use the spool function of the server apparatus, transmitting the print data to the server apparatus, whereas, if it is determined by said determination means to use the spool function of said image storage means, controlling said image storage means to store the print data and controlling said sending means to send the job information; receiving means for receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer when the print data is stored in said image storage means; and transmission means for transmitting the print data to the printer when said receiving means receives the transmission permission information from the server apparatus.

Therefore, Claim 8 features a client coupled to a server wherein both the client and the server have image storage for storing print data for a print job. Furthermore, both the client and the server can transmit the print data from their own image storage to a printer. In operation, a user is allowed to select from which image storage the print data should come from during execution of a print job. If a user wants the print data to come from the client's image storage, the client requests permission from the server to transmit the print data to the printer before the actual transmission of print data occurs. By virtue of these features, a user is given

flexibility in determining which apparatus, the server or the client, should be used to transmit the print data. At the same time, control over the printing process is maintained by the printer server using the permission granting mechanism.

In contrast, Kurachi discloses a print managing system having a plurality of clients and a printer or a printer server. As the functions of the printer and the printer server are the same, the printer and the printer server of Kurachi are herein termed a “printer/server”. In Kurachi, each of the clients generates and sends print data for a print job and the printer/server produces a rough image of the print data. The printer/server then sends the rough image with management information to the client in response to a request signal from the client. The client may then display the rough image with the management information on the client’s display.

Referring now to FIG. 3 of Kurachi, the print data of the print job is stored only in print data storing device 3a in printer 3 or a printer server having the same functions as printer 3. In accordance with FIG. 3, client 1 generates and sends the print data to printer 3, but does not store the print data for any further processing. Therefore, according to Kurachi, RAM in the client is used to temporarily store the data necessary for the CPU and the like. (See column 7, lines 48 to 53.) Therefore, after the generated print data has been sent to the print data storing device 3b, no print data remains in client 1. This is consistent with the operation of conventional printer systems.

Kurachi fails to discuss the disadvantages of storing the print data of the print job only in the printer/server. These disadvantages include increases in the necessary memory capacity of the printer/server and unduly complex control of the print order. Accordingly, in Kurachi, the print data of the print job is stored only in the printer/server, as is well known in

conventional printer systems, since there is no motivation or intention to store the print data of the print job in both of the client and the printer/server.

Kurachi necessarily cannot disclose selection means for selecting between spool functions as there is no disclosure of multiple image storage locations from which to spool. In addition, as there is only one source for print data, Kurachi has no need of a determination means for determining which spool function is selected. Finally, as Kurachi discloses only one possible source of print data to be sent to the printer, there is no need in a client for a receiving means for receiving transmission permission information from a server apparatus indicating that the print data may be transmitted to the printer by the client.

As Kurachi fails to disclose the image storage features, spool function selection feature, and the transmission permission feature of Claim 8, Applicant submits that Claim 8 is not anticipated by the disclosures of Kurachi. Accordingly, Applicant believes Claim 8 is now in condition for allowance and respectfully requests same.

Claims 11 and 14 are directed to a method and a storage medium storing a program, respectively, corresponding to the apparatus of Claim 8. Applicant submits that the discussion from above in regard to Claim 8 applies to Claims 11 and 14 as well. Accordingly, Applicant believes that Claims 11 and 14 are now in condition for allowance and respectfully requests same.

Turning now to Claim 15, Claim 15 is directed to an information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing print data, and a printer via a network. The information apparatus comprises: image storage means for storing print data of a print job to be executed according to a print request so that the information processing apparatus directly transmits the print data to the

printer without intervention of the server apparatus; determination means for determining to use one of a spool function of said image storage means and a spool function of the server apparatus based on a condition of said image storage means, the spool function being adapted to store the print data of the print job to be executed according to the print request to the server apparatus; control means for, if said determination means determines to use the spool function of the server apparatus, transmitting the print data to the server apparatus, whereas, if said determination means determines to use the spool function of said image storage means, controlling said image storage means to store the print data; receiving means for receiving transmission permission information from the server apparatus indicating the print data may be transmitted to the printer when the print data is stored in said image storage means; and transmission means for transmitting the print data to the printer when said receiving means receives the transmission permission information from the server apparatus.

Therefore, a system in accordance with Claim 15 includes a client apparatus and a server apparatus that have spool functions. Furthermore, the client can determine whether the image data of the print job is stored in the client or the server based on the condition of the image storage means, and the server apparatus manages the print order. By virtue of these features, the spool function to be used is automatically determined without any user interaction, and the load of the printer in regard to storage needs and print order is reduced.

As discussed above, Kurachi necessarily cannot disclose multiple spool functions as there is no disclosure in Kurachi of multiple image storage locations from which to spool. In addition, as there are no multiple spool functions disclosed by Kurachi, a system in accordance with Kurachi has no need of a determination means for determining which spool function to use. Finally, as Kurachi discloses only one possible source of print data to be sent to the printer, there

is no need for a receiving means in a client for receiving transmission permission information from a server apparatus indicating that the print data may be transmitted to the printer by the client.

As Kurachi fails to disclose the image storage features, the spool function determination feature, and the transmission permission feature of Claim 15, Applicant submits that Claim 15 is not anticipated by the disclosures of Kurachi. Accordingly, Applicant believes Claim 15 is now in condition for allowance and respectfully requests same.

Claims 18 and 21 are directed to a method and a storage medium storing a program, respectively, corresponding to the apparatus of Claim 15. Applicant submits that the discussion from above in regard to Claim 15 applies to Claims 18 and 21 as well. Accordingly, Applicant believes that Claims 18 and 21 are now in condition for allowance and respectfully requests same.

Claim 22 is directed to an information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing a print job and intermediate data of the print job, and a printer via a network. The information processing apparatus comprises: image storage means for storing the print job and the intermediate data of the print job to be executed according to a print request such that the information processing apparatus directly transmits the print job to the printer without intervention of the server apparatus; list acquisition means for acquiring a list of print jobs managed by the server apparatus; job designation means for designating a print job to be previewed based on the list of print jobs acquired by said list acquisition means; determination means for determining whether the intermediate data of the print job designated by said job designation means is stored in said image storage means or in the spool unit of the server

apparatus; intermediate data acquisition means for, if it is determined by said determination means that the intermediate data of the print job designated by said job designation means is stored in said image storage means, reading the intermediate data from said image storage means, whereas, if it is determined by said determination means that the intermediate data is stored in the server apparatus, downloading the intermediate data from the server apparatus; and control means for displaying a preview image based on the intermediate data acquired by said intermediate data acquisition means.

Therefore, a system in accordance with Claim 22 includes a client and a server, each of which are capable of storing print data in an image storage location. Furthermore, the system includes a feature in which the print job and its intermediate data is stored in the client or the server, according to the determination by the determination means, and the print jobs managed by the server apparatus are acquired as a list. By virtue of this feature, a preview image is properly displayed by acquiring the intermediate data based on the list irrespective of which image storage location is used.

As discussed above, Kurachi fails to disclose multiple image storage locations within the printing system. Therefore, Kurachi cannot be said to disclose determining which image storage location contains intermediate data used to generate a preview image used in managing a print job as featured in Claim 22. As Kurachi does not disclose all of the features of Claim 22, Applicant submits that Claim 22 is not anticipated by the disclosures of Kurachi. Accordingly, Applicant believes Claim 22 is now in condition for allowance and respectfully requests same.

Claims 26 and 30 are directed to a method and a storage medium storing a program, respectively, corresponding to the apparatus of Claim 22. Applicant submits that the

discussion from above in regard to Claim 22 applies equally to Claims 26 and 30. Accordingly, Applicant believes that Claims 26 and 30 are now in condition for allowance and respectfully requests same.

Claims 1 to 7 were rejected under 35 U.S.C. § 103(a) over Kurachi in view of U.S. Patent No. 5,822,499 (Okada).

Amended independent Claim 1 is directed to a server apparatus adapted to communicate with at least one client, each client including an image storage unit for storing print data of a print job, and a printer via a network. The server apparatus comprises: an image storage means for storing the print data of the print job to be executed according to a print request from a client; order management means for managing a print order of the print job to be executed according to the print request from the client; transmission means for transmitting transmission permission information to the client based on the print order managed by said order management means, the transmission permission information indicating that the print data may be transmitted to said printer; termination means for determining whether a message, which indicates that the printing process of the print data has finished, is received from the client within a predetermined time in response to the transmission permission information; and control means for transmitting the print data of the print job of the print order from said image storage means to the printer when said determination means determines that the message is not received.

Accordingly, Claim 1 is directed to a server coupled to a client wherein both the server and the client have image storage for storing print data for a print job. Furthermore, both the server and the client can transmit the print data from their own image storage to a printer. In operation, if a message indicating the completion of a printing process is not received from the client within a predetermined time, the print data is transmitted from the image storage means of

the server to the printer. By virtue of this feature, transmission of the print image to the printer may be undertaken by the server when the client is down.

As discussed above, Kurachi fails to disclose a server and a client wherein both include image storage features for storage of print data. Furthermore, Kurachi fails to disclose the operational features of a system having multiple image storage locations in accordance with Claim 1. Specifically, Kurachi fails to disclose transmitting the print data from the image storage of the server to the printer when it is determined that a message, which indicates that the printing process of the print data has finished, is not received from the client in response to a transmission of permission information as featured in Claim 1.

Okada arguably discloses an output apparatus for changing a print environment in accordance with a received set-up job so as to validate the print environment for predetermined data. Such a “job is illustrated in FIGS. 11A and 11B. FIG. 11A shows a data group which starts by a start of job command 1201 which is a control command to the printer and ends by an end of job command 1202. A set-up job 1204 of FIG. 11B is used to modify the print environment information of the job. Numeral 1205 denotes the start of job command and numeral 1206 denotes the end of job command.” (See Okada, FIG. 11A and FIG. 11b, Column 5, Lines 13 to 19.) Therefore, the “end of job command” of Okada is a command sent to a printer to indicate the end of a job that the printer is supposed to process. Thus, the “end of job command” is sent as part of a job to the printer before the printer starts to process the job.

In contrast, the message featured in Claim 1 indicates that the printing process of the print data has finished. This means that the message is sent by the client to a server after the print job is finished. Whereas the “end of job command” of Okada is a command telling the printer to stop processing a job, the message of Claim 1 is an indication by a client that the print

job has been processed. Therefore, the “end of job command” of Okada cannot be equated with the message of Claim 1.

Even if the system of Kurachi were modified in accordance with the disclosures of Okada, and such a modification is not conceded as proper by Applicant, such a modified system would not include all of the features of Claim 1. In particular, the combination of Kurachi and Okada will fail to include at least the features of both a server and a client having image storage capabilities for print data and transmitting the print data from the image storage of the server to the printer when it is determined that a message, which indicates that the printing process of the print data has finished, is not received from the client in response to a transmission of permission information. This is because, as discussed above, neither Kurachi nor Okada disclose or suggest these features.

As neither Kurachi nor Okada, neither alone nor in combination, disclose all of the features of Claim 1, Applicant submits that Claim 1 is allowable and respectfully requests same. Claims 4 and 7 are directed to a method and a storage medium storing a program, respectively, corresponding to the apparatus of Claim 1. Applicant submits that the discussion from above in regard to Claim 1 applies equally to Claims 4 and 7. Accordingly, Applicant believes that Claims 4 and 7 are now in condition for allowance and respectfully requests same.

The other claims in this application are each dependent from one of the independent claims discussed above and are, therefore, believed to be allowable for at least the same reasons. However, individual reconsideration of the allowability of each dependent claim on its own merits is respectfully requested since each dependent claim is also deemed to define an additional aspect of the invention.

In view of the foregoing amendments and remarks, and no new issues being raised, Applicant submits that the entire application is in condition for allowance and respectfully requests favorable reconsideration and early passage of the application to issue.

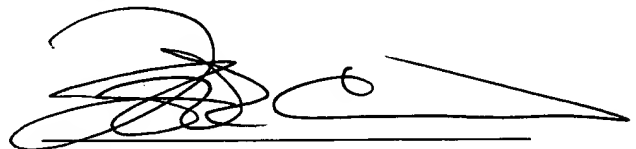
REQUEST FOR INTERVIEW

Applicant requests that the Examiner conduct a personal or telephonic interview with Applicant's representative regarding this case. If such an interview has not been conducted before the Examiner takes this Amendment into consideration, Applicant respectfully requests that the Examiner contact Applicant's representative as indicated below.

CONCLUSION

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank L. Cire', with a long horizontal line extending to the right.

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